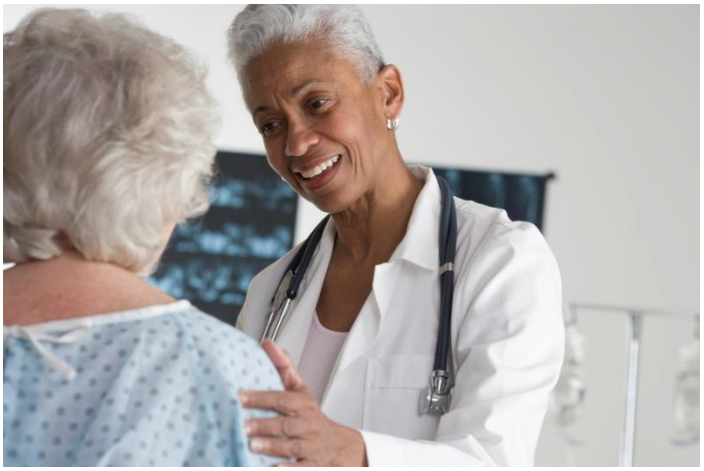
# Breast Cancer in Virginia

## Risk Factors[1]

- Various genetic, reproductive, and lifestyle factors are associated with breast cancer risk. Factors that increase the risk of developing breast cancer include female sex, aging, family history, certain genetic mutations (e.g. BRCA1 and BRCA2 genes), dense breast tissue, certain benign breast conditions, early age at menarche, late age at menopause, never having children, age at birth of first child of 30 or older, recent oral contraceptive use, postmenopausal hormone use, overweight/obesity, sedentary lifestyle, and alcohol use.
- Steps that women can take to decrease their risk of developing breast cancer include being physically active, maintaining a healthy weight, limiting alcohol consumption, and breastfeeding.



## Warning Signs and Symptoms[1]

- Abnormal finding on a mammogram
- Breast lump
- Other breast changes such as skin irritation, retraction, or discharge

## Early Detection[1]

- Screening mammography (x-ray of the breast) according to guidelines
- Magnetic resonance imaging (MRI) is also recommended for some high-risk women

## Breast Cancer Facts

- Breast cancer is the most commonly diagnosed cancer (excluding non-melanoma skin cancer) and the second leading cause of cancer death (after lung cancer) among women in the United States. One in eight women will be diagnosed with breast cancer during her lifetime.[1]
- Over the 2004-2008 time period, the incidence rate of breast cancer was 124.2 cases per 100,000 women in Virginia.[2] (U.S. rate=124.0 cases per 100,000 women)[3]
- Figure 1 shows breast cancer incidence rates by health district in Virginia. Chesterfield, Henrico, and Portsmouth had the highest incidence rates of breast cancer among the 35 health districts.[2]

Figure 1

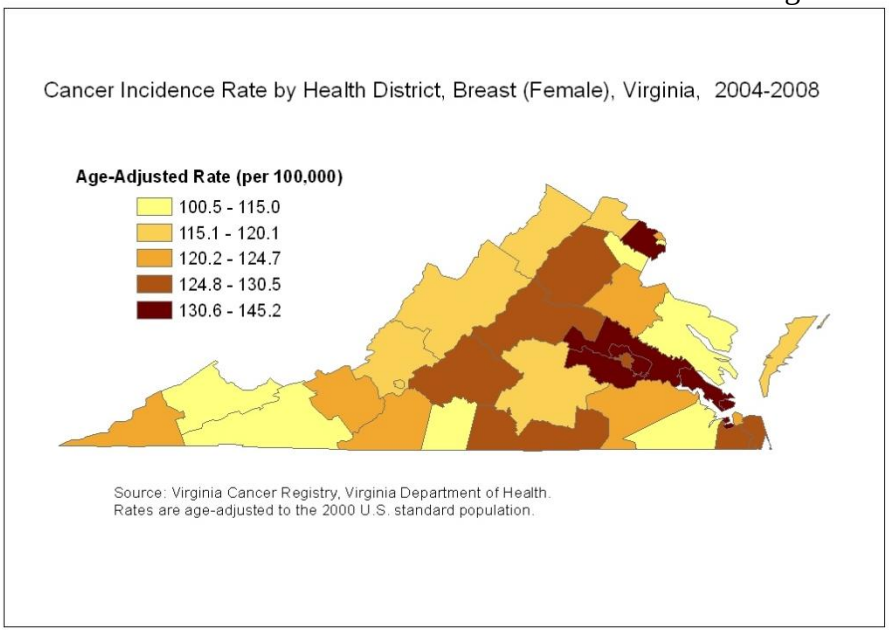
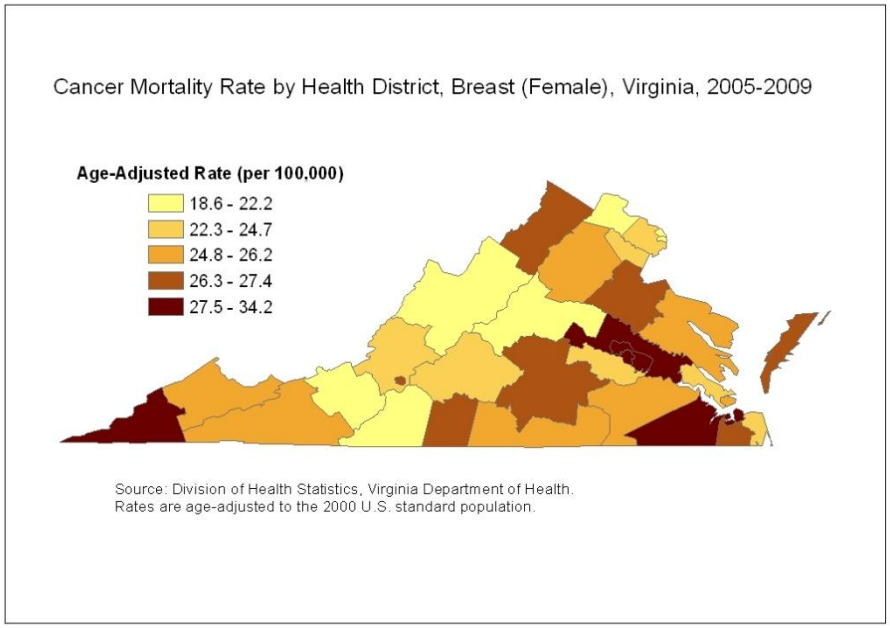


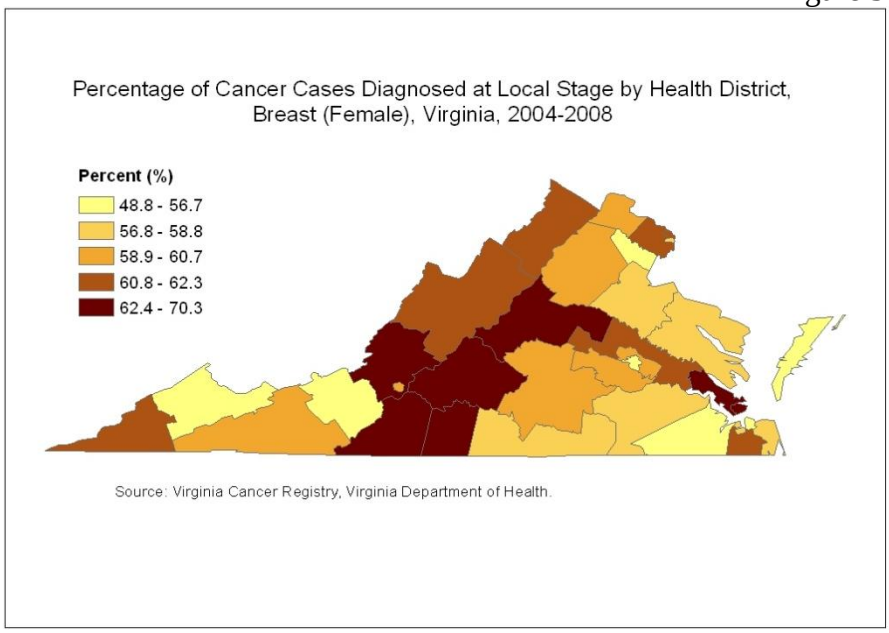
Figure 2




- Over the 2005-2009 time period, the mortality rate from breast cancer was 24.7 deaths per 100,000 women in Virginia.[4] (U.S. rate=22.9 deaths per 100,000 women)[5]
- Figure 2 shows breast cancer mortality rates by health district in Virginia. Portsmouth, Norfolk, and Lenowisco had the highest mortality rates from breast cancer among the 35 health districts.[4]

- White and black women in Virginia were diagnosed with breast cancer at similar rates;[2] however, black women had a mortality rate that was over 50% higher than that of white women.[4]
- Breast cancer has a five-year relative survival rate of 98 percent if diagnosed in its earliest (local) stage when it is most curable.[1] In Virginia, 60 percent of breast cancer diagnosed was local stage.[2]

Figure 3

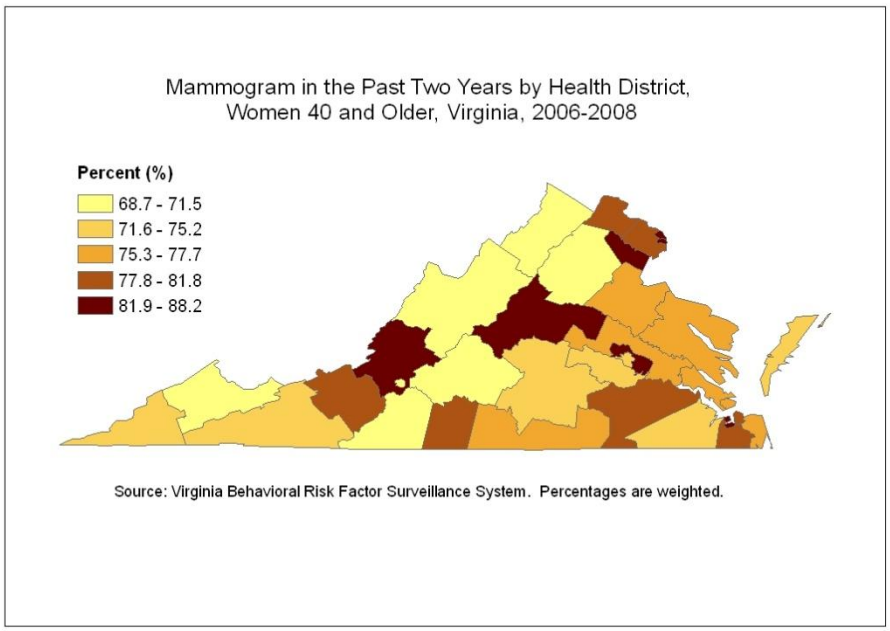



- Figure 3 shows the percentage of breast cancer cases diagnosed local stage by health district in Virginia. New River, Western Tidewater, and Norfolk had the lowest percentage of breast cancer cases diagnosed local stage among the 35 health districts.[2]
- White women (62%) were more likely to have their breast cancer diagnosed local stage than African-American women (52%).[2]

According to 2008 health behavior survey data, 78% of Virginia women 40 years and older reported having had a mammogram in the previous two years. (U.S. average=76%)[6]

- Figure 4 shows mammography screening rates by health district in Virginia. Lord Fairfax, Central Virginia, and Cumberland Plateau had the lowest mammography screening rates among the 35 health districts.[7]
- Mammography screening rates were lower among women who were less educated, lower income, and uninsured. Mammography screening rates did not differ significantly between African-American and white women.[7]

Figure 4




- In Virginia in 2009, there were 1,751 inpatient hospitalizations for female breast cancer, at a total cost of over $53.5 million. The average length of stay was 2.4 days and the average charge per stay was $30,567.[8]

[1] American Cancer Society *Cancer Facts & Figures 2009* (http://www.cancer.org)
[2] Virginia Cancer Registry. Based on combined data from 2004-2008. Rates are age-adjusted to the 2000 U.S. standard population.
[3] Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, Altekruse SF, Kosary CL, Ruhl J, Tatalovich Z, Cho H, Mariotto A, Eisner MP, Lewis DR, Chen HS, Feuer EJ, Cronin KA, Edwards BK (eds). *SEER Cancer Statistics Review, 1975-2008*, National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2008/, based on November 2010 SEER data submission, posted to the SEER web site, 2011. Based on combined data from 2004-2008. Rates are age-adjusted to the 2000 U.S. standard population.
[4] VDH Division of Health Statistics. Based on combined data from 2005-2009. Rates are age-adjusted to the 2000 U.S. standard population.
[5] Xu JQ, Kochanek KD, Murphy SL, Tejada-Vera B. Deaths: Final data for 2007. National vital statistics reports; vol 58 no 19. Hyattsville, MD: National Center for Health Statistics. 2010. Available from: http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf. National rate is the 2007 age-adjusted rate, which is comparable to the state five-year interval midpoint.
[6] Centers for Disease Control and Prevention (CDC). *Behavioral Risk Factor Surveillance System Survey Data.* Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008. (http://apps.nccd.cdc.gov/brfss) Accessed 6/2/10.
[7] Virginia Behavioral Risk Factor Surveillance System. Based on 2006 and 2008 data (pooled). Percentages are population-weighted.
[8] VDH Virginia Health Information Hospital Discharge Patient-Level Dataset.

University of Virginia Health System Cancer Center

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